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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,534	09/29/2003	Tai-Shui Ho	HOT'A3005/EM	7511

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EXAMINER

HO, THOMAS M

ART UNIT	PAPER NUMBER
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2132

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/671,534

Applicant(s)

HO ET AL.

Examiner

Thomas M. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/29/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-3 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is uncertain what is meant by the term “color matrix” or how a password may be added onto a color matrix.

A color matrix as understood in the art, is literally a mathematical matrix of numbers that is frequently used in the transformation of one set of colors to another.

For example, a recent article from <http://www.c-sharpcorner.com/UploadFile/mahesh/Transformations0512192005050129AM/Transformations05.aspx> reveals:

The ColorMatrix Class

In this section, we will discuss the ColorMatrix class. As you can guess from its name, this class defines a matrix of colors. In the preceding sections, we discussed the Matrix class. The ColorMatrix class is not very different from the Matrix class. The Matrix class is used in general transformation to transform graphics shapes and images, while the ColorMatrix class is specifically designed to transform colors. Before we see practical use of the color transformation, we will discuss the ColorMatrix class, its properties and methods.

The ColorMatrix class constructor takes an array, which contains the values of matrix items. The Item property of this class represents a cell of the matrix and can be used to get and set cell values. Besides the Item property, the ColorMatrix class provides 25 MatrixXY properties, which represent items of the matrix at row (X+1) and column (Y+1). MatrixXY properties can be used to get and set an item's value. Listing 10-15 creates a ColorMatrix object with item(4,4) set to 0.5 (half opacity). After that it sets the value of item (3, 4) to 0.8 and item (1, 1) to 0.3.

```
float[][] ptsArray = { new float[] {1, 0, 0, 0, 0},
    new float[] {0, 1, 0, 0, 0},
    new float[] {0, 0, 1, 0, 0},
    new float[] {0, 0, 0, 0.5f, 0},
    new float[] {0, 0, 0, 0, 1}};
ColorMatrix clrMatrix = new ColorMatrix(ptsArray);
if( clrMatrix.Matrix34 <= 0.5)
{
    clrMatrix.Matrix34 = 0.8f;
    clrMatrix.Matrix11 = 0.3f;
}
```

Listing 10-15. Creating a ColorMatrix object

Now let's apply color matrices transform colors.

Matrix Operations in Image Processing

Although passwords may be added to files, it is uncertain what claim 1 refers to when it recites adding a password to each of two color matrixes of a digital video work.

Passwords are placed on files only insofar as its rendering software supports this security function. For example, passwords are frequently placed on compressed files. However, the password function, and the ability of the file to be accessed only if said password is correctly given is dependent upon the software used to render that file. In it's most

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fundamental form, computer information is a series of ones and zeros. A password cannot be added to mere data alone.

A password if added to file, is useful as a password only in the context of supporting software which may ask a user for password when the content is rendered or executed.

Additionally, the Applicant does not disclose how a digital video work has two color matrixes. If the composite color information of a digital video work is aggregated, it may be considered a single color matrix. On the other hand, the color information within a digital video work may be logically divided into numerous subunits. The applicant is required to clarify what in particular constitutes a color matrix in reference to a digital video file, and how a password is added to mere data.

For purposes of examination, the Examiner has interpreted claim 1 to mean adding a password to the digital video work such that prior to a successful rendering of the digital work, rendering software asks the user for a password to access the digital video.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeung et al., US patent 6668246.

In reference to claim 1:

Yeung et al. (Column 8, lines 1-20) & (Column 7, lines 7-22) discloses a method of protecting copyright of a digital video work, comprising the steps of:

- Adding a password to each of two color matrixes of said digital video work first; (Column 8, lines 1-20) & (Column 7, lines 7-22)
- Entering said password to a specified video player; (Column 8, lines 1-20)
- Playing a complete visual effect on said video work after said video work being published on Internet, if said password being correct; (Column 8, lines 1-20)

Yeung et al. fails to disclose:

Playing a partial gray-scale visual effect of said video work if a video player other than said specified video player being used for playing said video work.

Yeung et al. instead discloses that if the password is not, correct, a digital video version of substantially inferior quality will be played instead. (Column 8, lines 1-20)

It would have been obvious to one of ordinary skill in the art to modify Yeung et al. to play a partial-complete gray-scale visual effect as the substantially inferior video quality displayed in Yeung et al. because playing a gray-scale video version is generally

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recognized as a lower quality version and is computationally less intensive than rendering full color video.

In reference to claim 2:

Yeung et al. (Column 4, lines 40 – Column 5, line 10) et seq. discloses the method of protecting copyright of a digital video work of claim 1, wherein said color matrix of the video work has a password for a digital watermark figure/text, and the contents of said watermark figure are the copyrighted data of said video work, such that when said watermark figure/text being added into said video work, said watermark figure/text being unable to be recognized visually, such that a copyright infringer being unable to eliminate said copyrighted data in said video work, and thus maintaining a proper evidence for the copyright infringement, where the watermark includes information such as the copyright data of the said video work, and where such watermark is not able to be recognized visually as opposed to the visual perception scrambling that is also being performed.

In reference to claim 3:

Yeung et al. (Column 4, lines 20 – Column 5, line 10) discloses the method of protecting copyright of a digital video work of claim 1, said video work has installed another obvious copyrighted data as a first protection to the copyright of said video work, where the video work's other copyright data is the notice of copyright and other personal information of the user in the watermark of the video, and where the watermark is one of the levels of protection aside from visual perception scrambling and general data scrambling. (Column 6, lines 20-32)

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Conclusion

6. The following art not relied upon is made of record.

- US patent 5991426 discloses a method of inserting an watermark into digital video
- 6282299 discloses a method of inserting a watermark into digital video.

7. Any inquiry concerning this communication from the examiner should be directed to Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571)272-3799.

The Examiner may also be reached through email through Thomas.Ho6@uspto.gov

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

General Information/Receptionist Telephone: 571-272-2100 Fax: 571-273-8300

Customer Service Representative Telephone: 571-272-2100 Fax: 571-273-8300

TMH

February 26th, 2007

Thomas M Ho AU 2132

Benjamin E. Carter
Examiner AU 2132